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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/606,560

06/26/2003

Thomas Holtey

120-140

4724

34845 7590 04/06/2007
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EXAMINER

DUONG, DUC T

ART UNIT

PAPER NUMBER

2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/606,560

Applicant(s)

HOLTEY ET AL

Examiner

Duc T. Duong

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,9,13 and 16-29 is/are rejected.
- 7) ☒ Claim(s) 3-8,10-12,14 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 2, 9, 13, and 16-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Prieto, Jr. et al (US Patent 7,002,918 B1).

Regarding to claims 1, 9, and 13, Prieto discloses a method for selecting one of a plurality of data sources 15-30 as a source of data, wherein the data sources are apportioned into a first types of data source and a second type of data source (fig. 1 col. 4 lines 51-57), the method comprising the steps of providing a vector 202 for each one of the plurality of data sources, the vector comprising a series of N bits (time indices), where each bit corresponds to one of N time slots (fig. 3 col. 7 lines 44-53), each bit representing whether the associated one of the plurality of data sources is assigned to

Art Unit: 2616

the corresponding time slot; determining, for each time slot, a slot style (queue) of the time slot (fig. 3 col. 7 lines 59-60); and selecting, at each time slot, one of the plurality of data sources as the source of data, the step of selecting operating in response to the slot style of the time slot (fig. 2 col. 5 lines 65-67 and col. 6 lines 1-9).

Regarding to claim 2, Prieto discloses the step of selecting further operates in response to a value of each bit 202 associated with the time slot 210-214 from each vector of the plurality of data vectors (fig. 3 col. 7 lines 50-53).

Regarding to claim 16, Prieto discloses a queuing system (fig. 2) comprising a plurality of queues 104-110, each queue having a type (priority class or QoS) associated therewith (col. 5 lines 63-67); a selector 152, coupled to the plurality of queues, the selector for selecting one of the plurality of queues to provide data to an output (col. 7 lines 17-19), the selector comprising a control structure 200 including a vector 202 comprising a number of bits corresponding to a number of time slots, wherein each of the time slots has a type associated therewith, wherein a set of the plurality of queues are assigned to each of the time slots (fig. 3 col. 7 lines 44-53), and wherein the selector selects one of the plurality of queues to provide an output for each time slot based on the type of the each time slot and the type of the queue (fig. 5 col. 8 lines 43-58).

Regarding to claim 17, Prieto discloses a rate limiter 116 disposed between the plurality of queues and the selector (fig. 2 col. 6 lines 17-23).

Regarding to claim 18, Prieto discloses the plurality of queues comprises a plurality of priority queues and a plurality of balanced bandwidth queues (fig. 3 col. 7

Art Unit: 2616

lines 61-67), wherein the selector further comprises an indicator for indicating that at least one of the plurality of the balanced bandwidth queues is ready to transmit data (fig 2 col. 8 lines 4-18).

Regarding to claim 19, Prieto discloses the selector operates to select a priority queue if the priority queue is ready and assigned (fig. 2 col. 8 lines 30-42).

Regarding to claim 20, Prieto discloses the selector operates to select a priority queue if the priority queue is ready but not assigned, and the associated time slot type is a priority time slot type (fig. 4 col. 8 lines 59-67 and col. 9 lines 1-3).

Regarding to claim 21, Prieto discloses the selector operates to select a balanced bandwidth queue if the assigned priority queue is not ready, and the balanced bandwidth queue is assigned and ready (fig. 4 col. 8 lines 59-67 and col. 9 lines 1-3; noted the Q1 and Q2 can be interchange to read on the balanced bandwidth queue and priority queue).

Regarding to claim 22, Prieto discloses the selector operates to advance the time slot if the assigned priority queue is not ready, and the balanced bandwidth queue is assigned but not ready, and the indicator is set to indicate that at least one of the plurality of balanced bandwidth queues is ready (col. 9 lines 4-21).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 23-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prieto in view of Opalka et al (US Patent 6,259,699 B1).

Regarding to claim 23, Prieto discloses all the limitations with respect to claim 16, except for a network line card comprising an ingress data path for forwarding a packet from a device to a fabric and an egress data path for forwarding a packet from a fabric to a device. However, Opalka discloses a switching system comprising both ingress and egress data path for transmitting packets via switching fabric (fig. 7 col. 9 lines 26-37). Thus, it would have been obvious to a person of ordinary skill in the art, at time of the invention, to employ the networking line card as taught by Opalka into Prieto's system since such line card is well known in the art and can be easily implemented with hardware.

Regarding to claim 24, Prieto discloses a rate limiter 116 disposed between the plurality of queues and the selector (fig. 2 col. 6 lines 17-23).

Regarding to claim 25, Prieto discloses the plurality of queues comprises a plurality of priority queues and a plurality of balanced bandwidth queues (fig. 3 col. 7 lines 61-67), wherein the selector further comprises an indictor for indicating that at least one of the plurality of the balanced bandwidth queues is ready to transmit data (fig 2 col. 8 lines 4-18).

Regarding to claim 26, Prieto discloses the selector operates to select a priority queue if the priority queue is ready and assigned (fig. 2 col. 8 lines 30-42).

Regarding to claim 27, Prieto discloses the selector operates to select a priority queue if the priority queue is ready but not assigned, and the associated time slot type is a priority time slot type (fig. 4 col. 8 lines 59-67 and col. 9 lines 1-3).

Regarding to claim 28, Prieto discloses the selector operates to select a balanced bandwidth queue if the assigned priority queue is not ready, and the balanced bandwidth queue is assigned and ready (fig. 4 col. 8 lines 59-67 and col. 9 lines 1-3; noted the Q1 and Q2 can be interchange to read on the balanced bandwidth queue and priority queue).

Regarding to claim 29, Prieto discloses the selector operates to advance the time slot if the assigned priority queue is not ready, and the balanced bandwidth queue is assigned but not ready, and the indicator is set to indicate that at least one of the plurality of balanced bandwidth queues is ready (col. 9 lines 4-21).

Allowable Subject Matter

5. Claims 3-8, 10-12, 14, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Duong whose telephone number is 571-272-3122. The examiner can normally be reached on M-F (9:00 AM-6:00 PM).

Art Unit: 2616

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DD
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